

Fig.1

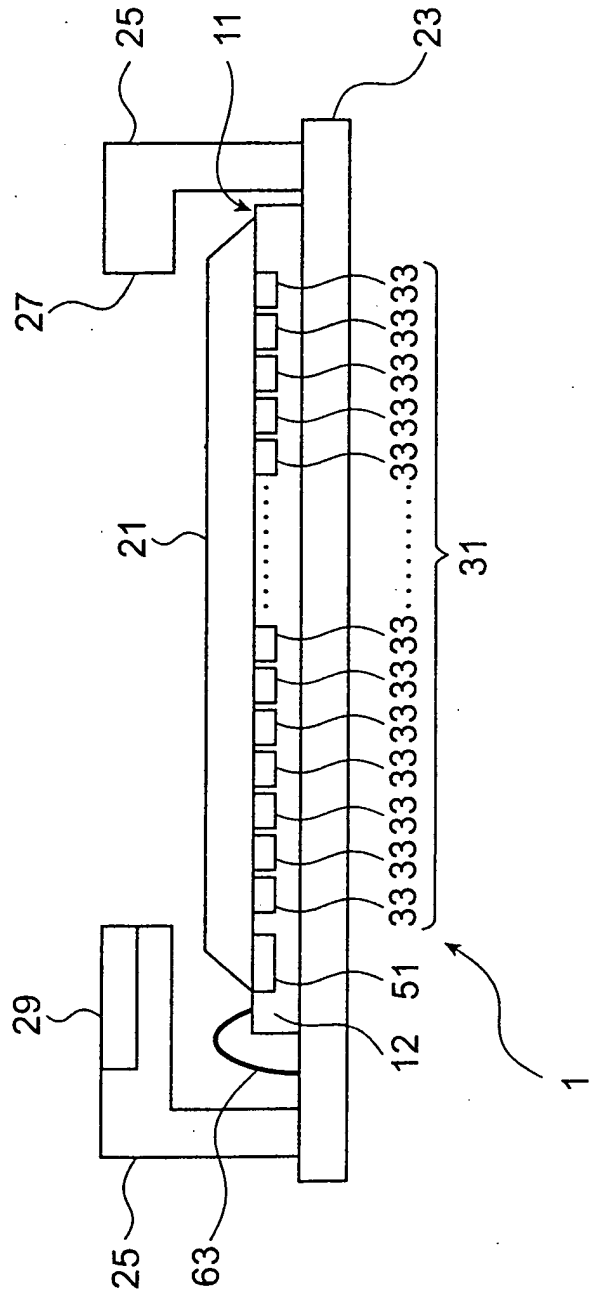


Fig.2

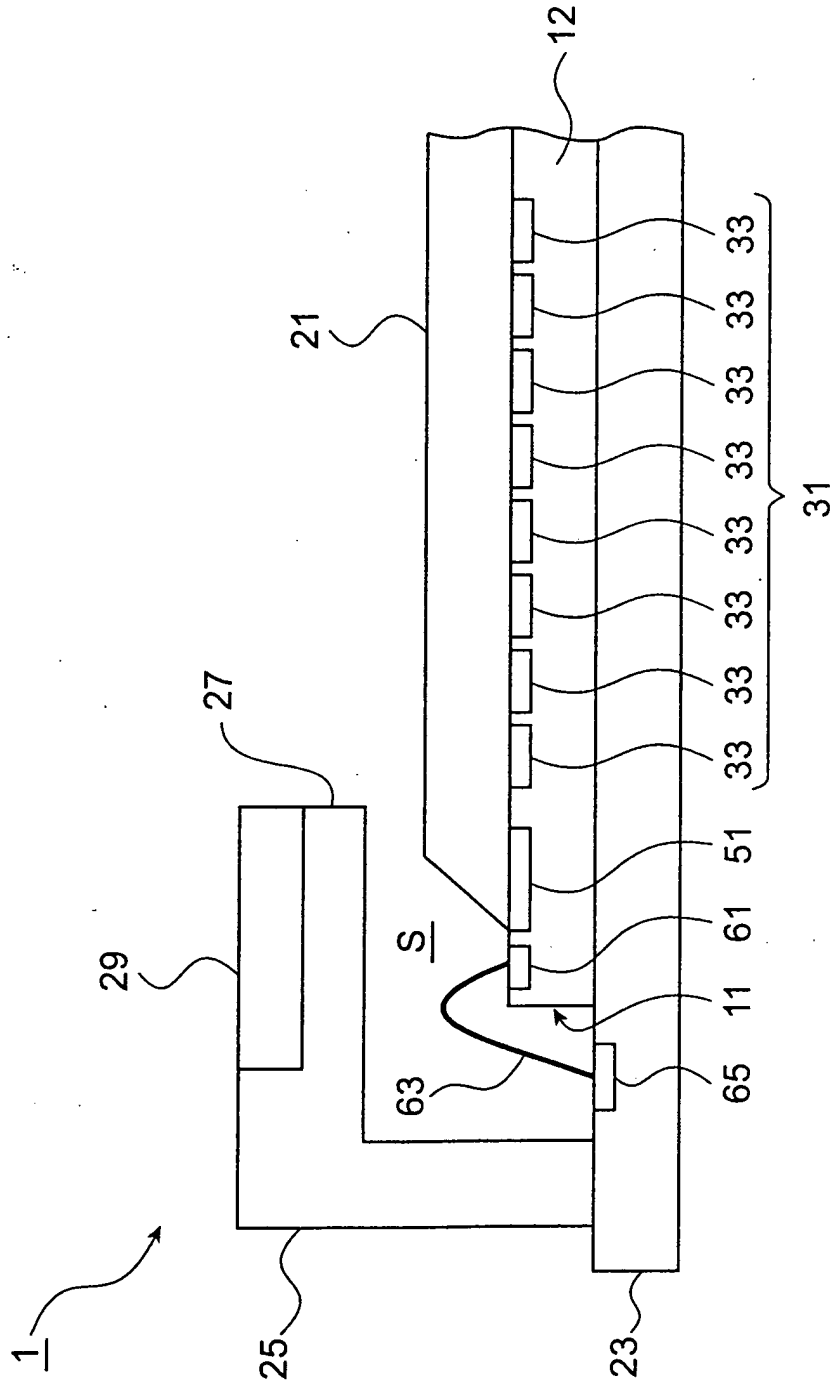
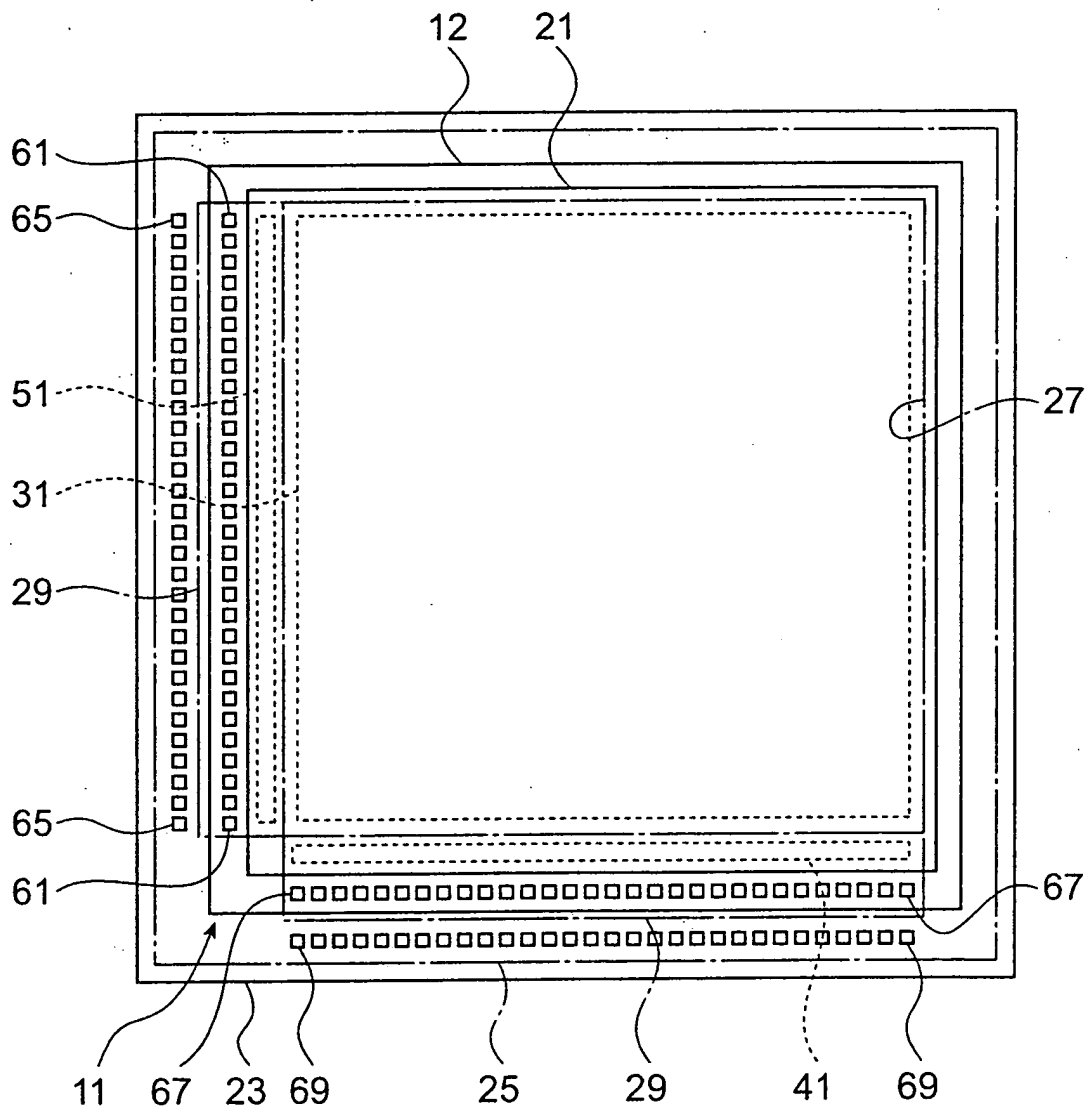


Fig.3



The diagram illustrates a semiconductor device with a grid of pixels. Each pixel (33) contains a photodiode (35) and is connected to a vertical shift register (41) via a vertical gate (43). The vertical shift register is connected to a horizontal shift register (59) via a horizontal gate (51). The horizontal shift register is connected to an output (60) via a transistor (55). The device also includes a vertical shift register (41) and a horizontal shift register (59). The diagram shows a grid of pixels (33) and associated gates (31, 35, 41, 43, 45, 51, 53, 55, 57) and registers (41, 59). A coordinate system with x and y axes is shown at the bottom right.

Fig.5

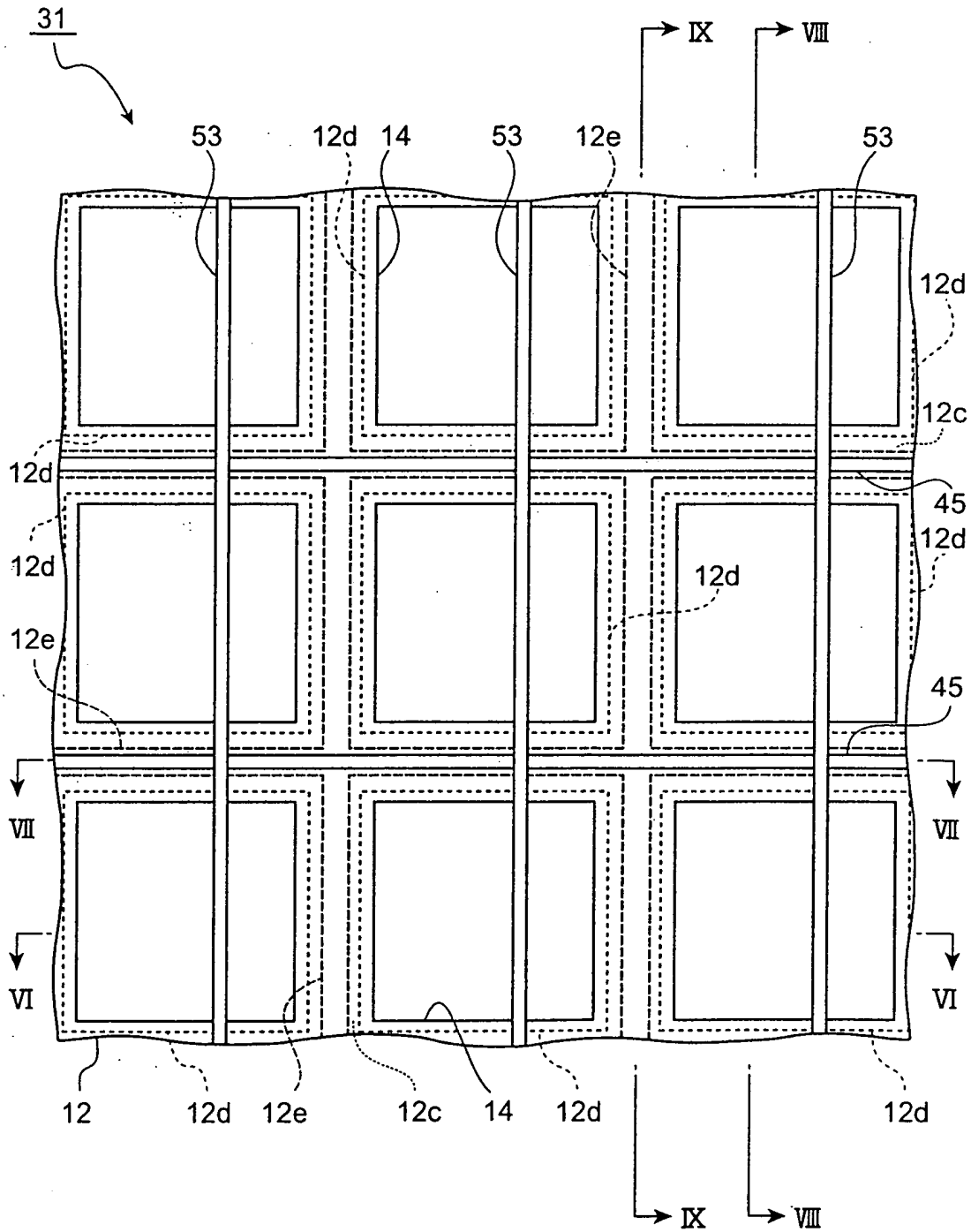


Fig.6

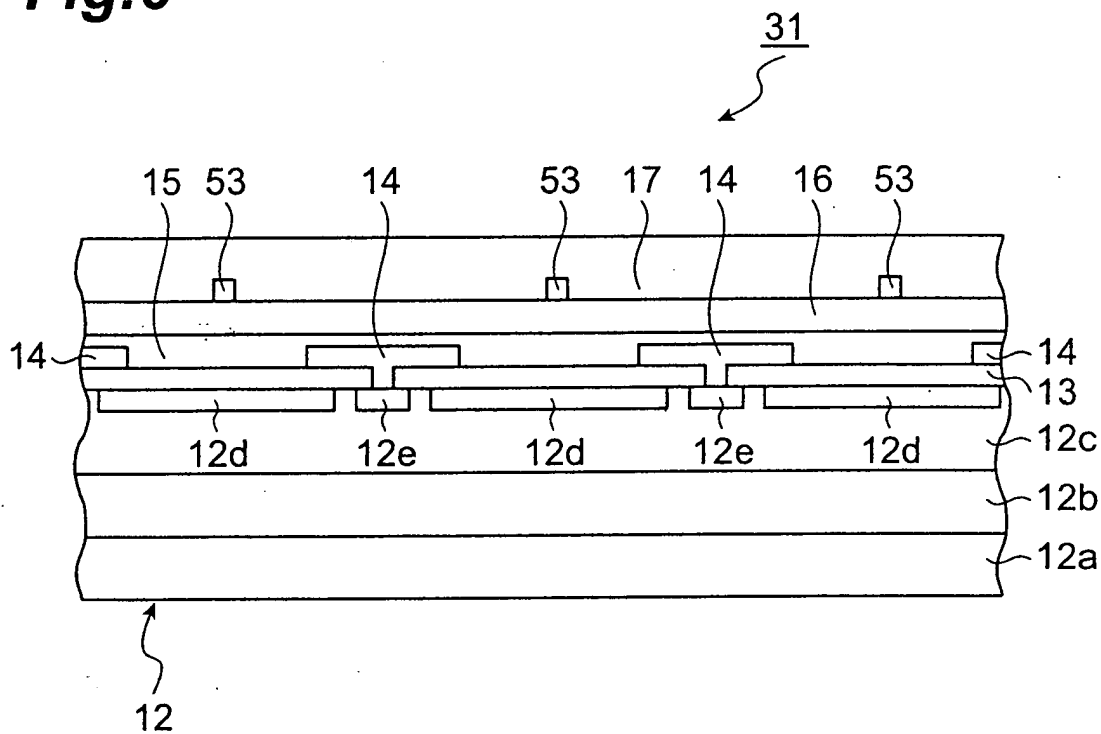
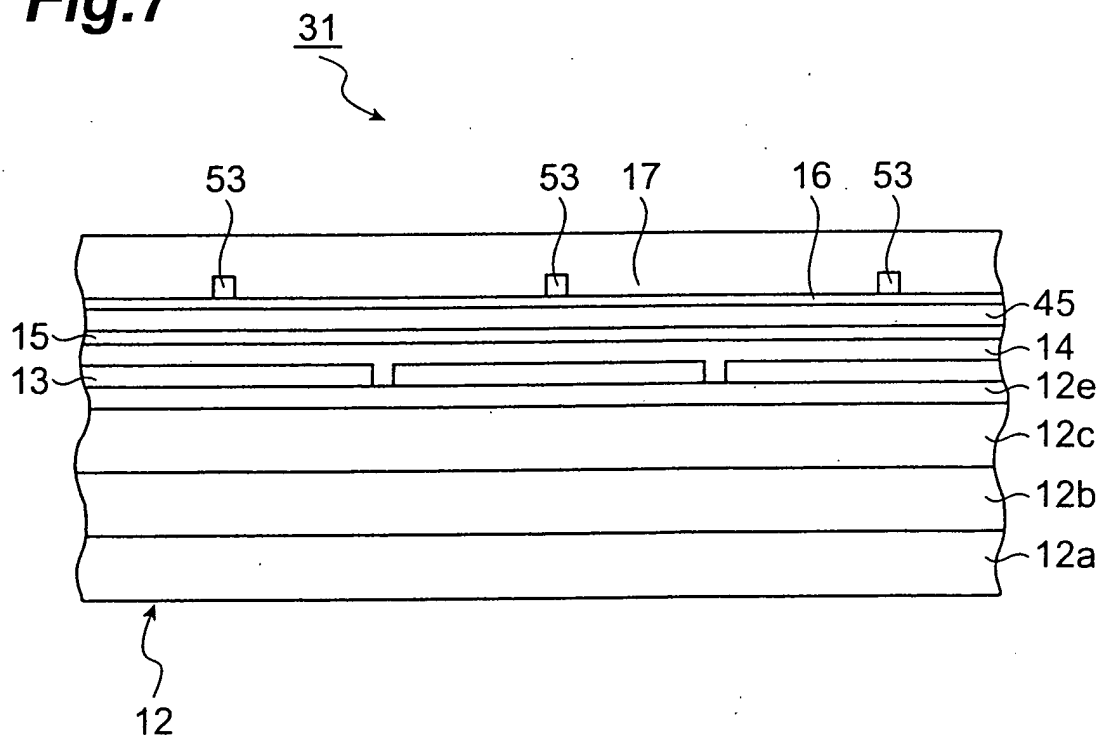


Fig.7



31



31



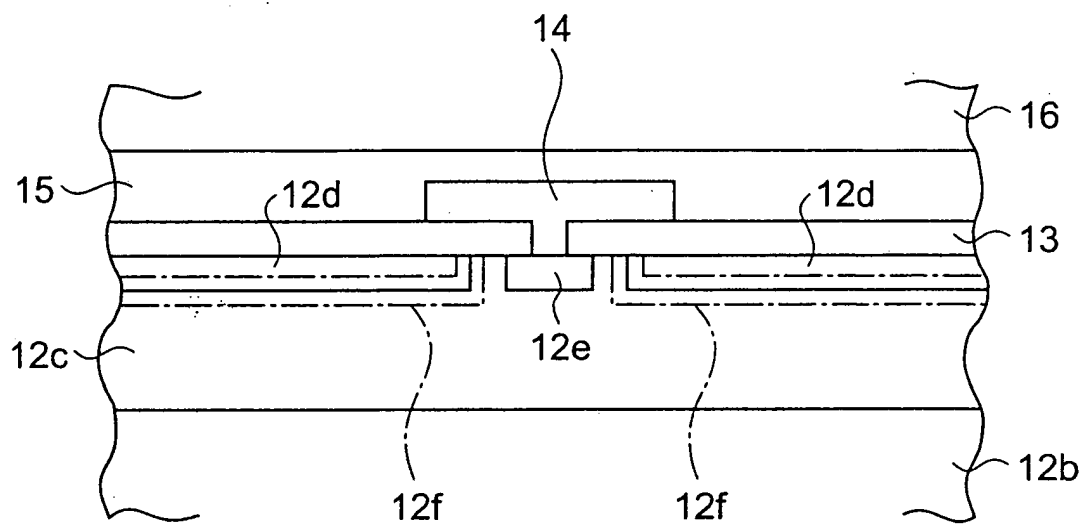
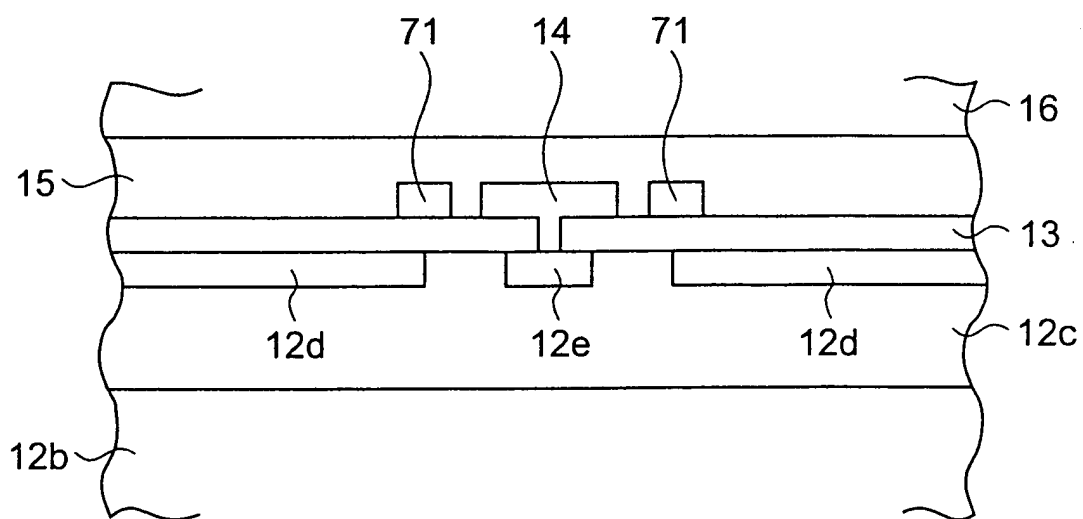
Fig.10**Fig.11**

Fig.12

